

Sheet 1 of 2

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO. SERIAL NO.
03-2-308 10/550.465

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

APPLICANT
Christian
FILING DATE GROUP
7/11/2006 1745

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUB- CLASS	FILING DATE IF APPROPRIATE
/K.H./	5,993,506	11/30/99	Kobayashi et al.	75	240	
	5,277,987	1/11/94	Garg et al.	428	457	
	5,470,673	11/28/95	Tseung et al.	429	44	
	5,298,343	3/29/94	Savadogo et al.	429	44	
	5,945,231	11/31/99	Narayanan et al.	429	30	
	5,922,488	7/13/99	Marucchi-Soos et al.	429	44	
	3,902,917	9/2/75	Baresel et al.	136	86	
	3,943,005	3/9/76	Mund	136	120	
	4,430,170	2/7/84	Stern	204	39	
	4,702,784	10/27/87	Naoumidis et al.	156	89	
	6,040,077	3/21/00	Debe et al.	429	40	
	6,030,718	2/29/00	Fuglevand et al.	429	26	
	3,615,840	10/26/71	Wolfe	136	86D	
	4,316,944	2/23/82	Landsman et al.	429	44	
	4,325,843	4/20/82	Slaugh et al.	252	443	
	4,990,372	2/5/91	Sunder et al.	427	237	
	3,848,062	11/12/74	Steiger et al.	423	440	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

- /K.H./ 1 J.B. Claridge et al., New Catalysts for the Conversion of Methane to Synthesis Gas: Molybdenum and Tungsten Carbide, *J. Catalysis*, **180**, 85-100 (1998)
- 2 Voorhies, Electrochemical and Chemical Corrosion of Tungsten Carbide (WC), *J. Electrochem. Soc.*, vol. 119, n. 2, pp. 219-222 (1972)
- 3 Binder et al., Tungsten Carbide electrodes for Fuel Cells with Acid Electrolytes, *Nature*, **224**, 1299-1300 (1969)
- 4 Binder et al., Behavior of Tungsten Carbide in Electrodes for Fuel Cells with Acidic Electrolytes, *Energy Conversion*, **10**, 25-28 (1970)

Examiner /Kwang Han/ Date Considered 08/02/2009

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /K.H./

Sheet 2 of 2

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/K.H./	3,077,385	2/12/63	Robb	23	208	
↓	4,232,097	11/4/80	Shanks et al.	429	44	
	2006/0058183	3/16/2006	Christian	502	182	
↓	2003/0077460	4/24/2003	Christian et al.	428	440	
	3,480,470	11/25/69	Nestor	136	86	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

/K.H./	5 L.Bartha et al., Chemistry of Tungsten Oxide Bronzes, <i>Int. J. Refractory Metals & Hard Materials</i> 13 (1995) 77-91
↓	6 U.S. Patent Application, Serial No. 09/675,510, filed 9/29/2000
	7 P. Ross et al., The Relation of Surface Structure to the Electrocatalytic Activity of Tungsten Carbide, <i>J. Catalysis</i> 48 (1977) 42-59
↓	8 L. Baudendistel et al., Feul Cell Battery with Non-Noble Metal Electrodes and Acid Electrolyte, <i>Proc. of the 7th International Energy Conversion Engineering Conf.</i> , American Chemical Society (Wash. D.C. Sept. 1972) Paper No. 729004
	9 S. Liu, Electronic Structure of the Hypothetical Electrode Material PtWO ₃ , <i>Surface Science</i> 115 (1982) 633-637
↓	10 J. Bockris, Electrocatalysis of Oxygen Reduction by Sodium Tungsten Bronze, <i>J. Electrochem Soc.</i> , vol. 120, no. 1 (1973) 61-66
	11 P. Kulesza, Tungsten Oxides as Active Supports for Highly Dispersed Platinum Microcenters: Electrocatalytic Reactivity Toward Reduction of Hydrogen Peroxide and Oxygen, <i>J. Electrochem. Soc.</i> , vol. 144, no. 6 (1997) 1911-1916

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